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FILE 'MEDLINE, CAPLUS, CANCERLIT, BIOSIS, EMBASE' ENTERED AT 12:49:22 ON
     13 MAR 2005
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             12 S EDOTECARIN
              0 S L1 AND L2
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        3377225 NEOPLASIA OR CARCINOMA OR CANCER
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in at least one of the files. Refer to file specific help messages
or the STNGUIDE file for information on formats available in
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L8
           17 L7 AND PY<=1998
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L8
     ANSWER 1 OF 17
                       MEDLINE on STN
     1999052006
                 MEDLINE
ΑN
DN
     PubMed ID: 9834941
ΤI
     Cancer chemoprevention. Part 1: Retinoids and carotenoids and
     other classic antioxidants.
IIA
     Singh D K; Lippman S M
     Department of Gynecologic Oncology, University of Texas, M. D. Anderson
CS
     Cancer Center, Houston, USA.
SO
     Oncology (Williston Park, N.Y.), (1998 Nov) 12 (11) 1643-53,
     1657-8; discussion 1659-60. Ref: 111
     Journal code: 8712059. ISSN: 0890-9091.
     United States
CY
DT
     Journal; Article; (JOURNAL ARTICLE)
     General Review; (REVIEW)
     (REVIEW, TUTORIAL)
LA
     English
FS
     Priority Journals
    199902
EM
ED
     Entered STN: 19990316
     Last Updated on STN: 19990316
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Entered Medline: 19990226 AB Cancer chemoprevention is the use of specific natural or synthetic substances with the objective of reversing, suppressing, or preventing carcinogenic progression to invasive cancer. Currently, numerous chemopreventive agents are in various stages of development and testing. Part 1 of this two-part series provides an overview of issues unique to chemoprevention trials, including the use of surrogate biomarkers as end points. This is followed by a discussion of the retinoids, such as all-trans-retinoic acid (ATRA [Vesanoid]), 9-cis-retinoic acid (9cRA), and isotretinoin (Accutane), and the carotenoids (e.g., beta-carotene and lycopene) and other "classic" antioxidants (e.g., vitamins E and C and selenium). Research on these agents will be delineated by disease site when applicable. Part 2, which will appear in next month's issue, will focus on hormonally mediated chemopreventive agents, such as tamoxifen (Nolvadex), finasteride (Proscar), oral contraceptives, and dehydroepiandrosterone (DHEA). Part 2 also will cover nonantioxidant natural agents, such as calcium, the polyphenols, the isothiocyanates, and genistein; nonsteroidal anti-inflammatory drugs (NSAIDS), such as celecoxib, sulindac sulfone, and aspirin; difluromethylornithine (DFMO [Eflornithine]); oltipraz; and N-acetylcysteine. ANSWER 2 OF 17 L8 MEDLINE on STN MEDLINE AN 1998286828 DN PubMed ID: 9625164 ΤI Cancer and arthritis share underlying processes. ΑU Journal of the National Cancer Institute, (1998 Jun 3) 90 (11) SO 802-3. Journal code: 7503089. ISSN: 0027-8874. CY United States DTNews Announcement LΑ English FS Priority Journals EM 199806 ED Entered STN: 19980625 Last Updated on STN: 20000303 Entered Medline: 19980618 L8 ANSWER 3 OF 17 MEDLINE on STN AN 1998117285 MEDLINE DNPubMed ID: 9458081 ΤI Chemopreventive activity of celecoxib, a specific cyclooxygenase-2 inhibitor, against colon carcinogenesis. ΑU Kawamori T; Rao C V; Seibert K; Reddy B S CS Division of Nutritional Carcinogenesis, American Health Foundation, Valhalla, New York 10595, USA. SO Cancer research, (1998 Feb 1) 58 (3) 409-12. Journal code: 2984705R. ISSN: 0008-5472. CY United States DTJournal; Article; (JOURNAL ARTICLE) LΑ English FS Priority Journals EM199802 Entered STN: 19980306 Last Updated on STN: 20000303 Entered Medline: 19980224 AΒ Epidemiological and laboratory studies suggest that nonsteroidal antiinflammatory drugs reduce the risk of colon cancer and that the inhibition of colon carcinogenesis is mediated through modulation of prostaglandin production by cyclooxygenase (COX) isozymes (COX-1 and -2). Overexpression of COX-2 has been observed in colon tumors; therefore, specific inhibitors of COX-2 activity could potentially serve as

chemopreventive agents. Our recent study indicated that celecoxib

(SC-58635), a specific COX-2 inhibitor, suppressed colonic aberrant crypt foci formation induced by azoxymethane in rats and led us to investigate more specifically the chemopreventive potential of this compound using colon tumors as end points. Five-week-old male F344 rats were fed the

control diet (modified AIN-76A) or an experimental diet containing 1500 ppm celecoxib. Two weeks later, all animals except those in the saline-treated groups received s.c. injections of azoxymethane (15 mg/kg of body weight) once weekly for 2 weeks. All groups were kept on their regimen until the experiment was terminated, 50 weeks after carcinogen treatment. Colon tumors were evaluated histopathologically. Remarkably, dietary administration of celecoxib inhibited both incidence and multiplicity of colon tumors by about 93 and 97%, respectively. It also suppressed the overall colon tumor burden by more than 87%. The degree of tumor inhibition was more pronounced with celecoxib than it was with previously evaluated nonsteroidal anti-inflammatory drugs. The results of this study provide evidence, for the first time, that a specific COX-2 inhibitor, celecoxib, possesses strong chemopreventive activity against colon carcinogenesis.

- L8 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
- AN 1997:330637 CAPLUS
- TI Selective cyclooxygenase-2 inhibitors: pharmacology, clinical effects and therapeutic potential
- AU Van Ryn, Joanne; Pairet, Michel
- CS General Pharmacology, Department of Biological Research, Dr Karl Thomae GmbH, Biberach, 88397, Germany
- SO Expert Opinion on Investigational Drugs (1997), 6(5), 609-614 CODEN: EOIDER; ISSN: 0967-8298
- PB Ashley Publications
- DT Journal
- LA English
- Since the discovery of a second isoenzyme of cyclooxygenase, COX-2, the AB field of prostaglandin and inflammation research has rapidly developed. It is becoming more evident that inhibition of COX-2 results in the analgesic and anti-inflammatory actions of non-steroidal anti-inflammatory drugs (NSAIDs), and that inhibition of COX-1 results in the adverse side-effects seen with these compds. The mechanisms causing intestinal ulceration and renal toxicity are being elucidated, and large scale clin. trials with a preferential COX-2 inhibitor, meloxicam, and the first clin. results with highly selective COX-2 inhibitors, such as MK966 and celecoxib, support a superior benefit to risk ratio. In addition, important new areas where COX-2 expression is elevated, such as colonic cancer, have been identified and a role for COX-2 has also been proposed in Alzheimer's disease. Inhibition of COX-2 for these indications by selective COX-2 inhibitors may provide effective new therapies in the future.
- RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L8 ANSWER 5 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
- AN 1999064337 EMBASE
- TI The advent of highly selective inhibitors of cyclooxygenase A review.
- AU Cryer B.; Dubois A.
- CS Dr. B. Cryer, Dallas VA Medical Center (111B1), 4500 S. Lancaster Road, Dallas, TX 75216, United States. bcryer@mednet.swmed.edu
- SO Prostaglandins and Other Lipid Mediators, (1998) 56/5-6 (341-361). Refs: 102
 - ISSN: 0090-6980 CODEN: POLMFL
- PUI S 0090-6980(98)00064-1
- CY United States
- DT Journal; General Review
- FS 030 Pharmacology
 - 037 Drug Literature Index
- LA English
- SL English
- AB Cyclooxygenase (COX) exists in two isoforms, COX-1 and COX-2. COX-1 is present and is constitutively expressed in most cells and tissues, whereas COX-2 is felt to principally mediate inflammation. However, this distinction appears to be challenged by recent observations. This review addresses the roles of COX-1 and COX-2 isoforms in physiologic and pathophysiologic states and reviews potential therapeutic roles for

. selective COX inhibitors.

- L8 ANSWER 6 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
- 1999060732 EMBASE ΑN
- Mechanism of action of antiinflammatory drugs. TI
- ΑU Vane J.R.; Botting R.M.
- CS J.R. Vane, William Harvey Research Institute, Royal London Sch. of Med./Dentistry, Queen Mary and Westfield College, Charterhouse Square, London ECIM 6BQ, United Kingdom
- International Journal of Tissue Reactions, (1998) 20/1 (3-15). SO

Refs: 95

ISSN: 0250-0868 CODEN: IJTEDP

- CY Switzerland
- DT Journal; General Review
- FS 037 Drug Literature Index 038 Adverse Reactions Titles
- LΑ English
- SLEnglish
- AB In 1971, Vane showed that nonsteroid antiinflammatory drugs (NSAIDs) inhibited the biosynthesis of prostaglandins and proposed this as their mechanism of action. Much work around the world has followed. The aspirinlike drugs inhibit the binding of the prostaglandin substrate, arachidonic acid, to the active site of the enzyme. After characterization of the COX-1 enzyme in 1976, a second COX gene was discovered in 1991 encoding for the inducible COX-2. The constitutive isoform of COX, COX-1, has clear physiological functions. The inducible isoform, COX-2, is induced by proinflammatory stimuli in migratory cells and inflamed tissues. The range of activities of NSAIDs against COX-1 compared to COX-2 explains the variations in the side effects of NSAIDs at their antiinflammatory doses. Drugs which have the highest potency on COX-2 and less effect on COX-1 will have potent antiinflammatory activity with fewer side effects. All the results published so far support the hypothesis that the unwanted side effects of NSAIDs, such as damage to the gastric mucosa and kidneys, are due to their ability to inhibit COX-1, while their antiinflammatory (therapeutic effects) are due to inhibition of COX-2. Other roles for COX-2 inhibitors will surely be found in the next few years, for prostaglandin formation is under strong control in organs such as the kidney, lungs and uterus. COX-2 is also potently expressed in human colon cancer cells, and NSAIDs delay the progress of colon tumors possibly by causing apoptosis of the tumor cells. The risk of developing Alzheimer's disease, which may involve an inflammatory component, is lessened by chronic ingestion of NSAIDs. The new highly selective inhibitors of COX-2 will not only provide a means of delaying premature labor but will also lead to advances in cancer therapy and protection against Alzheimer's disease.
- L8ANSWER 7 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
- AN 1998370161 EMBASE
- ТT [COX 2 inhibitor as drug of many talents?]. COX-2-HEMMER ALS ALLESKONNER?.
- ΑU Wagner U.
- SO Pharmazeutische Zeitung, (29 Oct 1998) 143/44 (39-40).

ISSN: 0031-7136 CODEN: PZSED5

- Germany CY
- Journal; Note DT
- FS 002 Physiology
 - 005 General Pathology and Pathological Anatomy
 - 800 Neurology and Neurosurgery
 - 015 Chest Diseases, Thoracic Surgery and Tuberculosis
 - 016
 - 026 Immunology, Serology and Transplantation
 - 030 Pharmacology
 - 037 Drug Literature Index
 - 048 Gastroenterology
- LA German
- SL German

- L8 ANSWER 8 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
 AN 1998351229 EMBASE
- TI Clinical models of chemoprevention for colon cancer.
- AU Krishnan K.; Ruffin IV M.T.; Brenner D.E.
- CS Dr. K. Krishnan, Department of Internal Medicine, Division of Hematology/Oncology, East Tennessee State University, Johnson City, TN 37614-70622, United States
- SO Hematology/Oncology Clinics of North America, (1998) 12/5 (1079-1113).

 Refs: 235
 ISSN: 0889-8588 CODEN: HCNAEQ
- CY United States
- DT Journal; General Review
- FS 016 Cancer
 - 017 Public Health, Social Medicine and Epidemiology
 - 030 Pharmacology
 - 037 Drug Literature Index
 - 048 Gastroenterology
- LA English
- SL English
- Colon cancer is a common malignancy in the westernized world and is incurable in its advanced stages. This article summarizes the currently available information on colorectal cancer chemoprevention. A brief outline of the incidence and etiologic factors is followed by a discussion of the evidence on which chemopreventive strategies for colon cancer are modeled. This includes a description of the development of surrogate endpoint biomarkers and experimental models to study colorectal cancer chemopreventives, a review of the promising colorectal cancer chemopreventives, and a discussion of the issues to be addressed in the design of future chemoprevention trials. The article concludes with an emphasis on the development and validation of biomarkers and selection of high-risk cohorts using genetic and epidemiologic tools as the main goals of future colon cancer chemoprevention trials before large-scale, risk-reduction trials are conducted.
- L8 ANSWER 9 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
- AN 1998203476 EMBASE
- TI Cancer and arthritis share underlying processes.
- AU Ziegler J.
- SO Journal of the National Cancer Institute, (3 Jun 1998) 90/11 (802-803). ISSN: 0027-8874 CODEN: JNCIAM
- CY United Kingdom
- DT Journal; Note
- FS 016 Cancer
 - 037 Drug Literature Index
- LA English
- L8 ANSWER 10 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
- AN 1998195193 EMBASE
- TI Building better aspirin: Does aspirin ward off cancer and Alzheimer's?.
- AU Pennisi E.
- SO Science, (22 May 1998) 280/5367 (1191-1192). ISSN: 0036-8075 CODEN: SCIEAS
- CY United States
- DT Journal; Note
- FS 036 Health Policy, Economics and Management
 - 037 Drug Literature Index
 - 038 Adverse Reactions Titles
 - 039 Pharmacy
- LA English
- SL English
- AB New aspirin-like compounds target a single enzyme to deliver pain relief without stomach and kidney damage. They may also slow the development of

. cancer and Alzheimers's disease.

- L8 ANSWER 11 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
- AN 1998168912 EMBASE
- TI Cyclooxygenases 1 and 2.
- AU Vane J.R.; Bakhle Y.S.; Botting R.M.
- CS J.R. Vane, William Harvey Research Institute, St Barth./Royal Lon. Sch. Med./Dent., Queen Mary and Westfield College, Charterhouse Square, London EC1M 6BQ, United Kingdom
- SO Annual Review of Pharmacology and Toxicology, (1998) 38/- (97-120).

Refs: 127

ISSN: 0066-4251 CODEN: ARPTDI

- CY United States
- DT Journal; General Review
- FS 029 Clinical Biochemistry 030 Pharmacology 037 Drug Literature Index
- LA English
- SL English
- Cyclooxygenase (COX), first purified in 1976 and cloned in 1988, is the AB key enzyme in the synthesis of prostaglandins (PGs) from arachidonic acid. In 1991, several laboratories identified a product from a second gene with COX activity and called it COX-2. However, COX-2 was inducible, and the inducing stimuli included pro-inflammatory cytokines and growth factors, implying a role for COX-2 in both inflammation and control of cell growth. The two isoforms of COX are almost identical in structure but have important differences in substrate and inhibitor selectivity and in their intracellular locations. Protective PGs, which preserve the integrity of the stomach lining and maintain normal renal function in a compromised kidney, are synthesized by COX-1. In addition to the induction of COX-2 in inflammatory lesions, it is present constitutively in the brain and spinal cord, where it may be involved in nerve transmission, particularly that for pain and fever. PGs made by COX-2 are also important in ovulation and in the birth process. The discovery of COX-2 has made possible the design of drugs that reduce inflammation without removing the protective PGs in the stomach and kidney made by COX-1. These highly selective COX-2 inhibitors may not only be anti- inflammatory but may also be active in colon cancer and Alzheimer's disease.
- L8 ANSWER 12 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
- AN 1998155426 EMBASE
- TI COX-2 inhibitors for colorectal cancer.
- AU Elder D.J.E.; Paraskeva C.
- CS C. Paraskeva, Dept. of Pathology and Microbiology, University of Bristol, Bristol BS8 1TD, United Kingdom. C.Paraskeva@bristol.ac.uk
- SO Nature Medicine, (1998) 4/4 (392-393).

Refs: 11

ISSN: 1078-8956 CODEN: NAMEFI

- CY United States
- DT Journal; Note
- FS 016 Cancer
 - 037 Drug Literature Index
 - 048 Gastroenterology
- LA English
- L8 ANSWER 13 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
- AN 1998130236 EMBASE
- TI Opportunities in pain therapy: Beyond the opioids and NSAIDs.
- AU Kowaluk E.A.; Arneric S.P.; Williams M.
- CS M. Williams, Neurological Diseases Research, Abbott Laboratories, 100 Abbott Park Road, Abbott Park, IL 60064-3500, United States. mike.williams@abbott.com
- SO Emerging Drugs, (1998) 3/- (1-37).

Refs: 77

ISSN: 1361-9195 CODEN: EMDRFV

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CY
   _ United Kingdom
DT
     Journal; General Review
FS
             Neurology and Neurosurgery
             Cancer
     030
             Pharmacology
     037
             Drug Literature Index
LΑ
     English
SL
     English
AB
     Pain remains a major factor in patients seeking physician assistance.
     Neither the NSAIDs (non-steroidal, anti-inflammatory drugs) nor the
     opioids represent a complete answer to pain control, either alone or in
     combination. Recent research advances using molecular biological
     techniques have established that pain is a complex process involving
     multiple neurotransmitter/neuromodulator targets in the spinal cord, in
     ascending and descending spinal pathways and in the central nervous system
     as well as receptors and enzymes that are induced as part of the pain
     process. These advances, coupled with the considerable unmet medical need
     in the area of analgesics, are anticipated to lead to novel, non-opioid,
     non-NSAID approaches to pain relief and control.
L8
     ANSWER 14 OF 17
                     EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
AN
     1998129411 EMBASE
ΤI
     Drug currently in phase III trials for arthritis shows tumor-inhibiting
     potential in colon cancer model.
SO
     ONCOLOGY, (1998) 12/3 (423).
     ISSN: 0890-9091 CODEN: OCLGE
CY
     United States
DT
     Journal; Note
FS
     016
             Cancer
     037
             Drug Literature Index
     038
             Adverse Reactions Titles
     English
LA
L8
     ANSWER 15 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
AN
     97101463 EMBASE
DN
     1997101463
     Cyclo-oxygenase isoenzymes. How recent findings affect thinking about
ΤI
     nonsteroidal anti-inflammatory drugs.
     Jouzeau J.-Y.; Terlain B.; Abid A.; Nedelec E.; Netter P.
CS
     Dr. P. Netter, Faculte de Medecine, Laboratoire de Pharmacologie, Boite
     Postale 184, 54505 Vandoeuvre les Nancy, France
SO
     Drugs, (1997) 53/4 (563-582).
     Refs: 238
     ISSN: 0012-6667 CODEN: DRUGAY
CY
     New Zealand
DT
     Journal; General Review
FS
     029
            Clinical Biochemistry
     030
             Pharmacology
     037
             Drug Literature Index
     038
             Adverse Reactions Titles
LΑ
     English
SL
     English
AB
     The discovery of at least 2 cyclo-oxygenase (COX) isoenzymes, referred to
     as COX-1 and COX-2, has updated our knowledge of nonsteroidal
     anti-inflammatory drugs (NSAIDs). This has lead investigators to
     reconsider what can be awaited from this class of drugs. The 2 COX
     isoenzymes share structural and enzymatic similarities, but are
     specifically regulated at the molecular level and may be distinguished
     apart in their functions, although some physiological overlap between them
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does occur. The major goal in developing selective COX inhibitors is to improve NSAID tolerability. Classic NSAIDs preferentially inhibit COX-1 in

vitro, but it appears hazardous to judge their gastrointestinal (GI) safety profile from these data. New compounds with a high selectivity for COX-2, especially those that are non-acidic, may be better tolerated in the GI tract. While these compounds also might have a potential use in

various diseases such as colorectal cancer and neurodegenerative

diseases of the Alzheimer type, the possible appearance of adverse effects, perhaps renally-related, must be taken into consideration. Finally, well-designed large clinical trials are required to adequately estimate both the promising therapeutic advantages that may be offered by highly selective NSAIDs, and the potential drawbacks that may be inherent with prolonged COX-2 inhibition.

- L8 ANSWER 16 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
- AN 97093441 EMBASE
- DN 1997093441
- TI Cancer pain treatment insights.
- AU Barkin R.L.
- CS R.L. Barkin, 1653 West Congress Parkway, Chicago, IL 60612-3864, United States
- SO Pharmacotherapy, (1997) 17/2 (397-398).

Refs: 7

ISSN: 0277-0008 CODEN: PHPYDQ

- CY United States
- DT Journal; General Review
- FS 024 Anesthesiology 030 Pharmacology
 - 037 Drug Literature Index
 - 038 Adverse Reactions Titles
- LA English
- L8 ANSWER 17 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
- AN 96310572 EMBASE
- DN 1996310572
- TI Evaluation of cyclooxygenase-2 inhibitor for potential chemopreventive properties in colon carcinogenesis.
- AU Reddy B.S.; Rao C.V.; Seibert K.
- CS American Health Foundation, One Dana Road, Valhalla, NY 10595, United States
- SO Cancer Research, (1996) 56/20 (4566-4569).
 - ISSN: 0008-5472 CODEN: CNREA8
- CY United States
- DT Journal; Article
- FS 016 Cancer
 - 037 Drug Literature Index
- LA English
- SL English
- AΒ Epidemiological and laboratory studies indicate an inverse relationship between the risk of colon cancer development and intake of nonsteroidal antiinflammatory agents, including aspirin. One of the mechanisms by which nonsteroidal antiinflammatory agents inhibit colon carcinogenesis is through the inhibition of prostaglandin production by cyclooxygenase isozymes (COX-1 and COX-2). Overexpression of COX-2 has been observed in colon tumors. Thus, selective inhibitors of COX-2 could potentially serve as chemopreventive agents. We have assessed the chemopreventive properties of SC-58635, a COX-2 inhibitor, and of sulindac, as a positive control, in a double-blind study, using azoxymethane-induced colonic aberrant crypt foci (ACF) as a measure of efficacy. Five-week-old male F344 rats were fed the control diet (modified AIN-76A) or experimental diets containing 150 or 1500 ppm SC-58635, 320 ppm sulindac, or 1500 ppm placebo. Two weeks later, all animals except those in vehicle (normal saline)-treated groups were s.c. injected with azoxymethane (15 mg/kg of body weight, once weekly for 2 weeks). At 16 weeks of age, all rats were sacrificed and colons were evaluated for ACF. As expected, dietary administration of sulindac suppressed ACF development as such and reduced crypt multiplicity in terms of number of aberrant crypts/focus. Administration of 1500 ppm SC-58635 inhibited total ACF induction and crypt multiplicity by about 40-49%. Our finding that SC-58635 significantly suppressed colonic ACF formation and crypt multiplicity strengthens the hypothesis that a selective COX-2 inhibitor possesses chemopreventive activity against colon carcinogenesis.